

AGREEMENT

THIS AGREEMENT, made and entered into this _____ day of _____, 2014, by and between the City of Reno and City of Sparks, hereinafter referred to as the "CLIENT", and CDM Smith Inc., hereinafter referred to as "ENGINEER":

WITNESSETH:

WHEREAS, CLIENT desires to engineering support and construction management services for the Electrical System Upgrades Phase II - for the Truckee Meadows Water Reclamation Facility, hereinafter referred to as "Project";

WHEREAS, public convenience and necessity require the services of a consulting engineer to provide the services required;

WHEREAS, the CLIENT has found ENGINEER qualified and experienced in the performance of said services;

WHEREAS, the CLIENT is desirous of engaging the services of ENGINEER to perform said services; and

NOW, THEREFORE, said CLIENT and said ENGINEER, for the considerations hereinafter set forth, mutually agree as follows:

ARTICLE I - SERVICES

CLIENT agrees to retain and does hereby retain ENGINEER to perform the professional engineering services hereinafter more particularly described, with such services to commence on the date of the execution of this Agreement and to continue until the completion of the work provided for herein.

ENGINEER hereby agrees to perform the professional services as set forth herein and to furnish or procure the use of incidental services, equipment, and facilities necessary for the completion of said engineering services.

ENGINEER has the status of an independent contractor as defined in NRS 333.700 and shall not be entitled to any of the rights, privileges, benefits, and emoluments of either an officer or employee of CLIENT. ENGINEER shall undertake performance of services as independent contractor and shall be wholly responsible for the methods of performance and for their performance.

ARTICLE II - SCOPE OF SERVICES

The Scope of Services is set forth in Exhibit A as attached hereto and incorporated herein by this reference which consists of 34 pages setting forth tasks.

ARTICLE III - COMPENSATION

Payment for the engineering services hereinabove set forth shall be made by the CLIENT to the ENGINEER and shall be considered as full compensation for all personnel, materials, supplies, and equipment used in carrying out the work.

A. Compensation to the ENGINEER shall be on the basis of time and materials basis as set forth in Exhibit A attached hereto and incorporated herein by this reference.

B. Payments shall be made by the CLIENT based on itemized invoices from the ENGINEER which lists costs and expenses. The ENGINEER shall invoice the City of Reno for the total amount, and will be paid that amount by the City of Reno. The City of Reno will invoice the City of Sparks for reimbursement of the City of Sparks share.

C. CLIENT shall pay ENGINEER within 30 days of receipt by CLIENT of ENGINEER's invoice. If CLIENT disputes only portions of an invoice, CLIENT agrees to pay for undisputed items on that invoice within the time provided herein. Payment by CLIENT of invoices or request for payment shall not constitute acceptance by CLIENT of work performed under the Agreement by the ENGINEER.

D. The budget for total charges for services authorized by this Agreement is \$398,650.00 and shall not be exceeded without authorization of the CLIENT. City of Reno's share being the sum of \$273,593.50 and the City of Spark's share being the sum of \$125,056.50. The budget may be increased by amendment hereto if necessitated by a change in the scope of services which increases the cost of providing the services. ENGINEER is not authorized to provide any additional services beyond the scope of work without having authorized funding pursuant to a written amendment hereto signed by the authorized representative of the governing body.

ARTICLE IV - SCHEDULE OF WORK

ENGINEER will commence the services as described immediately following the Notice to Proceed provided to the ENGINEER by the CLIENT and will proceed with such services in a diligent manner. ENGINEER will not be responsible for delays caused by factors beyond ENGINEER's control and will not be responsible for delays caused by factors which could not reasonably have been foreseen at the time the Agreement was approved.

ARTICLE V - ASSIGNMENT OF AGREEMENT

The ENGINEER SHALL not assign this Contract or any portion of the work without prior written approval of the CLIENT which may be withheld for any reason whatsoever.

ARTICLE VI- OWNER'S RESPONSIBILITY

CLIENT shall provide any information in its possession that is requested by ENGINEER and is necessary to complete the Project. CLIENT shall assist ENGINEER in obtaining access to public and private lands to allow the ENGINEER to perform the work under this Agreement. CLIENT shall examine all studies, reports, sketches, estimates, specifications, drawings, proposals, and other documents presented by the ENGINEER and shall render decisions pertaining thereto within a reasonable time so as not to delay the work of the ENGINEER.

ARTICLE VII - NONDISCLOSURE OF PROPRIETARY INFORMATION

ENGINEER shall consider all information provided by CLIENT to be proprietary unless such information is available from public sources. ENGINEER shall not publish or disclose proprietary information for any purpose other than the performance of the Services without the prior written authorization of CLIENT or in response to legal process or as required by the regulations of public entities.

ARTICLE VIII - NOTICE

Any notice, demand, or request required by or made pursuant to this Agreement shall be deemed properly made if personally delivered in writing or deposited in the United States mail, postage prepaid, to the address specified below:

To CLIENT:

City of Reno
John Flansberg, Director of Public Works
1 East First Street, 7th Floor
Reno, NV 89501

City of Sparks
Neil Krutz, Deputy City Manager
for Community Services
431 Prater Way
Sparks, NV 89431

To ENGINEER:

CDM Smith Inc.
Raul E. Aviles, PE, Vice President
3860 GS Richards Blvd., Suite 100
Carson City, NV 89703

Nothing contained in this Article shall be construed to restrict the transmission of routine communications between representatives of ENGINEER and CLIENT.

ARTICLE IX - UNCONTROLLED FORCES

Neither CLIENT nor ENGINEER shall be considered to be in default of this Agreement, if delays in or failure of performance shall be due to uncontrollable forces the effect of which, by the exercise of reasonable diligence, the non-performing party could not avoid and is not

reasonably foreseeable at the time of entering into this Agreement. The term “uncontrollable forces” shall mean any event which results in the prevention or delay of performance by a party of it’s obligations under this Agreement and which is beyond the control of the non-performing party. It includes, but is not limited to, fire, flood, earthquakes, storms, lightning, epidemic, war, riot, civil disturbance, sabotage, inability to procure permits, licenses, or authorizations from any state, local, or federal agency or personal for any of the supplies, material, accesses, or services required to be provided by either CLIENT or ENGINEER under this Agreement, strikes, work slowdowns or other labor disturbances, and judicial restraint. ENGINEER shall be paid for services performed prior to the delay.

Neither party shall, however, be excused from performance if nonperformance is due to uncontrollable forces, which are removable. The provisions of this Article shall not be interpreted or construed to require ENGINEER or CLIENT to prevent, settle, or otherwise avoid a strike, work slowdown, or other labor action. The non-performing party shall upon being prevented or delayed from performance by an uncontrollable force immediately give written notice to the other party describing the circumstances and uncontrollable forces preventing continued performance of the obligation of this Agreement.

ARTICLE X- GOVERNING LAW

This Agreement shall be governed by and construed pursuant to the laws of the State of Nevada. In the event suit is commenced hereunder and in accordance with the Dispute Resolution Procedures of Article XXII, the suit shall be brought in the appropriate court in Washoe County, State of Nevada. In the event of an arbitration or mediation pursuant to Article XXII, such arbitration or mediation shall be held in Reno, Nevada.

ARTICLE XI - SUCCESSORS AND ASSIGNS

CLIENT and ENGINEER each binds itself and their successors, and assigns to the other party to this Agreement and to the successors, and assigns of such other party, in respect to all covenants, agreements and obligations or this Agreement.

ARTICLE XII - ASSIGNMENT

Neither CLIENT nor ENGINEER shall assign, sublet, or transfer any rights under interest in (including, but without limitation, monies that may become due or monies that are due) this Agreement without the written consent of the other, except to the extent that the effect of this limitation may be restricted by law. Unless specifically stated to the contrary in any written consent to an assignment, no assignment will release or discharge the assignor from any duty or responsibility under this Agreement. Nothing contained in this paragraph shall prevent ENGINEER from employing such independent consultants, associates, and subconsultants as she may deem appropriate to assist her in the performance of the Services hereunder.

ARTICLE XIII - INDEMNIFICATION

To the fullest extent permitted by law, ENGINEER shall defend, indemnify and hold harmless CLIENT and its officers, employees and agents (collectively "Indemnitees") from any liabilities, damages, losses, claims, actions or proceedings, including, without limitation, reasonable attorneys' fees, that are caused by the negligence, errors, omissions, recklessness or intentional misconduct of the ENGINEER or employees or agents of the ENGINEER in the performance of this Agreement.

ENGINEER assumes no liability for the negligence or willful misconduct of any indemnitee or other consultants of indemnitee.

ENGINEER'S indemnification obligations for claims involving Professional Liability (claims involving acts, error, or omissions in the rendering of professional services and Economic Loss Only (claims involving economic loss which are not connected with bodily injury or physical damage to property) shall be limited to the proportionate extent of ENGINEER'S negligence or other breach of duty.

If CLIENT's personnel (engineers or other professionals) are involved in defending such legal action, ENGINEER shall also reimburse CLIENT for the time spent by such personnel at the rate charged for such services by private professionals. These provisions shall survive termination of this agreement and shall be binding upon ENGINEER, her legal representatives, heirs, successors and permitted assigns.

If ENGINEER'S insurer does not so defend the CLIENT and the ENGINEER is adjudicated to be liable, reasonable attorney's fees shall be paid to CLIENT in an amount proportionate to the liability of ENGINEER.

ARTICLE XIV - INTELLECTUAL PROPERTY INDEMNITY

To the fullest extent permitted by law, ENGINEER shall defend, protect, hold harmless, and indemnify CLIENT and the CLIENT'S related Parties from and against any and all liability, loss, claims, demands, suits, costs, fees and expenses (including actual fees and expenses of attorneys, expert witnesses, and other consultants), by whomsoever brought or alleged, for infringement of patent rights, copyrights, or other intellectual property rights, except with respect to designs, processes or products of a particular manufacturer expressly required by CLIENT in writing. If ENGINEER has reason to believe the use of a required design, process or product is an infringement of a patent, ENGINEER shall be responsible for such loss unless such information is promptly given to CLIENT. This Indemnity Covenant shall survive the termination of this Agreement.

ARTICLE XV – PAYMENT OF TAXES

Any and all Federal, State and local taxes, charges, fees, or contributions required by law to be paid with respect to ENGINEER’S performance of this Agreement (including, without limitation, unemployment insurance, social security, and income taxes).

ARTICLE XVI - INSURANCE

GENERAL REQUIREMENTS

The CLIENT requires that ENGINEER purchase Industrial Insurance, General Liability, and Engineer’s Errors and Omissions Liability Insurance as described below against claims for injuries to persons or damages to property which may arise from or in connection with the performance of the work hereunder by the ENGINEER, its agents, representatives, employees or subconsultants. The cost of such insurance shall be borne by ENGINEER unless otherwise agreed.

INDUSTRIAL INSURANCE

It is understood and agreed that there shall be no Industrial Insurance coverage provided for ENGINEER or any Subconsultant by the CLIENT and in view of NRS 616.280 and 617.210 requiring that ENGINEER complies with the provisions of Chapters 616 and 617 of NRS, ENGINEER shall, before commencing work under the provision of this Agreement, furnish to the CLIENT a certificate of insurance from the Worker’s Compensation Insurer certifying that the ENGINEER and each Subconsultant have complied with the provisions of the Nevada Industrial Insurance Act, by providing coverage for each and every employee, subconsultants, and independent contractors.

Upon completion of the project, the contractor shall provide the CLIENT with a Final Certificate for itself and each Subconsultant which is prepared by the State of Nevada Industrial Insurance System. If the ENGINEER or Subconsultants are unlicensed and are a sole proprietor, coverage for the sole proprietor must be purchased and evidence of coverage must appear on the Certificate of Insurance and Final Certificate.

It is further understood and agreed by and between the CLIENT and ENGINEER that ENGINEER shall procure, pay for, and maintain the above mentioned industrial insurance coverage at the ENGINEER’s sole cost and expense.

MINIMUM SCOPE OF LIABILITY INSURANCE

Coverage shall be at least as broad as: *
Insurance Services office Commercial General Liability Coverage Occurrence form CG0001 11/85 or Insurance Services Office Comprehensive General Liability form CG0002 Ed 01/73 with the Board Form Comprehensive General Liability Endorsement GL0404.

Insurance Services Office Business Auto Coverage form number CA00 01 12/90 covering Automobile Liability code 1 any auto with changes in Business Auto and Trucker's Coverage forms - Insured Contract Endorsement form number CA00 29 12/88.

*Coverages may be excluded only with prior approval of the CLIENTS' Risk Managers.

Professional Errors and Omissions Liability applying to all activities performed under this Agreement in a form acceptable to CLIENT. ENGINEER will maintain professional liability insurance during the term of this Agreement and for a period of six (6) years from the date of substantial completion of the project. In the event the ENGINEER goes out of business during the term of this Agreement or the six (6) year period described above, ENGINEER shall purchase Extended Reporting coverage for claims arising out of ENGINEER's negligent acts, errors and omissions committed during the term of the Professional Liability Policy.

MINIMUM LIMITS OF INSURANCE

ENGINEER shall maintain limits no less than:

1. General Liability: \$2 million combined single limit per occurrence for bodily injury, personal injury and property damage and \$2 million annual aggregate.
2. ENGINEER's Errors and Omissions Liability: \$2 million per claim and \$2 million as an annual aggregate during the term of this Agreement and for six years after the completion of the project, with each subsequent renewal having a retroactive date which predates the date of this Agreement. The ENGINEER may purchase project insurance or obtain a rider on her normal policy in an amount sufficient to bring ENGINEER's coverage up to minimum requirements, said additional coverage to be obtained at no cost to the CLIENT. Should the CLIENTS' Risk Managers require project insurance, project insurance shall be purchased and premium costs shall be borne by the CLIENT. CLIENT retains option to purchase project insurance through the ENGINEER's insurer or through its own source.

DEDUCTIBLES

Any deductibles must be declared to and approved by the CLIENT Risk Management Divisions. The CLIENT reserves the right to request additional documentation, financial or otherwise prior to giving its approval of the deductibles. Any changes to the deductible made during the term of this Agreement or during the term of any policy, must be approved by the CLIENTS' Risk Managers.

OTHER INSURANCE PROVISIONS

General Liability Coverages

The CLIENT, its officers, officials, employees and volunteers are to be covered as insured as respects: liability arising out of activities performed by or on behalf of the ENGINEER including the insured's general supervision of the ENGINEER; products and completed operations of the

ENGINEER; or premises owned, occupied or used by the ENGINEER. The coverage shall contain no special limitations on the scope of protection afforded to the CLIENT, its officers, officials, employees or volunteers.

The ENGINEER's insurance coverage shall be primary insurance as respects the CLIENT, its officers, officials, employees and volunteers. Any insurance or self-insurance maintained by the CLIENT, its officers, officials, employees or volunteers shall be excess of the ENGINEER's insurance and shall not contribute with it in any way.

Any failure to comply with reporting provisions of the policies shall not affect coverage provided to the CLIENT, its officers, officials, employees or volunteers.

The ENGINEER's insurance shall apply separately to each insured against whom claim is made or suit is brought, except with respect to the limits of the insurer's liability.

The ENGINEER's insurance coverage shall be endorsed to state that coverage shall not be suspended, voided, canceled or non-renewed by either party, reduced in coverage or in limits except after thirty (30) days prior written notice by certified mail, return receipt requested, has been given to the CLIENT.

ACCEPTABILITY OF INSURERS

Insurance is to be placed with an A.M. Best and Company rating level of A - Class VII or better, or otherwise approved by the CLIENT in its sole discretion. CLIENT reserves the right to require that ENGINEER'S insurer be a licensed and admitted insurer in the State of Nevada, or on the Insurance Commissioner's approved but not admitted lists.

VERIFICATION OF COVERAGE

ENGINEER shall furnish the CLIENT with certificates of insurance, including but not limited to the Certificate of Compliance in NRS 616B.627 and with original endorsements affecting coverage required by this article. The certificates and endorsements for each insurance policy are to be signed by a person authorized by that insurer to bind coverage on its behalf and must be countersigned by a duly appointed and licensed resident agent in this state. The certificates are to be on forms approved by the CLIENT. All certificate and endorsements are to be received and approved by the CLIENT before work commences. The CLIENT reserves the right to require complete, certified copies of all required insurance policies, at any time.

SUBCONSULTANTS

ENGINEERS shall require all subconsultants to be insured on their own or under its policies and shall furnish separate certificates and endorsement for each subconsultant. Coverages for subconsultants shall be subjected to all of the requirements stated herein.

Miscellaneous Conditions

If the ENGINEER or any Subconsultant fails to maintain any of the insurance coverages required, the CLIENT may terminate this Agreement for cause.

ENGINEER shall be responsible for and remedy all damage or loss to any property, including property of CLIENT, caused in whole or in part by the ENGINEER, any subconsultant, or any employee, directed or supervised by ENGINEER, except damage of loss attributable to faulty drawings or specifications.

Nothing herein contained shall be construed as limiting in any way to the extent to which the ENGINEER may be held responsible for payment for damages to persons or property resulting from her operations or the operations of any subconsultant under her.

If ENGINEER's failure to maintain the required insurance coverage results in a breach of this Agreement, CLIENT may purchase the required coverage, and without further notice to ENGINEER, deduct from sums due to ENGINEER any premium cost advanced by CLIENT for such insurance.

ARTICLE XVII - LITIGATION

This Agreement does not require the ENGINEER to prepare for or appear in litigation on behalf of The CLIENT, or as agent of the CLIENT, other than specified herein, except in consideration of additional reasonable compensation.

ARTICLE XVIII - TERMINATION OF WORK

Either party to this Agreement may terminate the Agreement for cause upon giving the other party thirty (30) days prior written notice. Cause may include, failure to perform through no fault of the party initiating the termination. In addition, CLIENT may terminate the Agreement for any one of the following causes: performance by ENGINEER which CLIENT deems unsatisfactory in CLIENT's sole judgment; and CLIENT's lack of funds to complete the work. Cause for ENGINEER may include, failure of CLIENT to make timely payment to ENGINEER without good cause, following a demand for payment.

In addition, CLIENT may terminate any or all of the work covered by this Agreement by notifying ENGINEER in writing. In the event such termination occurs at the conclusion of services pursuant to an executed task order, then ENGINEER shall be entitled to receive compensation for all work satisfactorily completed and performed through the conclusion of that task order. No other changes or costs incurred for services or materials other than pursuant to an executed task order shall be reimbursed by CLIENT pursuant to this Agreement. In the event such termination occurs during the performance of services pursuant to an authorized task order, then ENGINEER and CLIENT shall need to determine what, if any additional services should be performed by ENGINEER in order to close out the work in progress and provide any such unfinished materials to CLIENT. ENGINEER and CLIENT shall agree upon the additional

amount of work to be performed following the termination notice and the amount payable by CLIENT for such work. In the event that the parties cannot otherwise agree on the amount to be paid pursuant to this provision, then the matter may be referred to the Dispute Resolution Procedure in ARTICLE XXII .

In the event the Agreement is terminated by CLIENT for cause, including performance deemed unsatisfactory by CLIENT, or ENGINEER failure to perform, or other cause created by ENGINEER, CLIENT may withhold and offset against any payments otherwise due and/or seek recovery from ENGINEER for amounts already paid, including without limitation: amounts paid for unsatisfactory work or work not done in accordance with this Agreement; value of CLIENT's time spent in correcting the work or problem; any increase in cost resulting from the problem or work; and any other costs which result from such termination.

ENGINEER expressly agrees that this Agreement shall be terminated immediately if for any reason local, federal and/or State Legislature funding ability to satisfy this Agreement is withdrawn, limited, or impaired.

ARTICLE XIX - PROFESSIONAL SERVICES

ENGINEER shall be responsible for the professional quality and technical accuracy of all services furnished by ENGINEER and their subconsultants under this Agreement. Without limiting the effect of any other provision of this Agreement and in addition to any other provision contained herein, ENGINEER shall, without additional compensation, correct or revise any errors or omissions in their services.

ENGINEER and their subconsultants retained pursuant to this Agreement are considered by CLIENT to be skilled in their profession to a degree necessary to perform the services and duties contained in this Agreement, and CLIENT hereby relies upon those skills and the knowledge of ENGINEER and their subconsultants. ENGINEER and their subconsultants shall perform such professional services and duties as contained in this Agreement in conformance to and consistent with the standards generally recognized as being employed by professionals of their caliber in the State of Nevada. ENGINEER makes no warranty, either expressed or implied, as to their findings, recommendations, specifications or professional advice other than as provided herein.

Neither CLIENTS' review, approval, or acceptance of nor payment for any of the professional services or work required under this Agreement shall be construed to operate as a waiver of any of CLIENTS' rights under of this Agreement. The rights and remedies of CLIENT provided for under this Agreement are in addition to any other rights and remedies provided by law.

Project information including but not limited to reports, written correspondence, and verbal reports will be prepared for the use of the CLIENT. The observations, findings, conclusions and recommendation made represent the opinions of the ENGINEER. Reports, records, and information prepared by others will be used in the preparation of the report. The ENGINEER has relied on the same to be accurate and does not make any assurances, representations, or warranties pertaining to the records or work of others, except for its subconsultants, nor does the

ENGINEER make any certifications or assurances except as explicitly provided in writing. No responsibility is assumed by the ENGINEER for use of reports for purposes of facility design by others.

ARTICLE XX - RIGHTS OF ENGINEERS AND EMPLOYEES

No personnel employed by ENGINEER shall acquire any rights or status in the CLIENT services and ENGINEER shall be responsible in full for payment of its employees, including insurance, deductions, and all the like.

ARTICLE XXI - SERVICES BY CLIENT

It is understood and agreed that the CLIENT shall, to the extent reasonable and practicable, assist and cooperate with the ENGINEER in the performance of ENGINEER's services hereunder. Such assistance and cooperation shall include, but not necessarily be limited to, environmental approval, right of access to work sites; providing material available from the CLIENT's files such as maps, As-Built drawings, records, and operation and maintenance information; serving all notices, holding all hearings, and fulfilling legal requirements in connection therewith; and rendering assistance in determining the location of existing facilities and improvements which may be affected by the project.

ARTICLE XXII - DISPUTE RESOLUTION PROCEDURE

1. If disputes arise under this Agreement, the parties agree to attempt to resolve such disputes through direct negotiations or if such negotiations are not successful, by non-binding mediation conducted in accordance with the rules and procedures to be agreed upon by the parties.
2. The prevailing party in an action to enforce the Agreement shall be entitled to recover its reasonable attorney's fees and costs. It is specifically agreed that a reasonable attorney's fee shall be \$125 per hour.

ARTICLE XXIII - NO UNFAIR EMPLOYMENT PRACTICES

1. In connection with the performance of work under this Agreement, Engineer agrees not to discriminate against any employee or applicant for employment because of race, creed, color, national origin, sex, sexual orientation or age. Such Agreement shall include, but not be limited to, the following: Employment, upgrading, demotion, or transfer, recruitment or recruitment advertising, layoff or termination, rates of pay or other forms of compensation, and selection for training, including apprenticeship.
2. ENGINEER further agrees to insert this provision in all subcontracts hereunder, except subcontracts for standard commercial supplies or raw materials.

3. Any violation of these provisions by ENGINEER shall constitute a material breach of contract.

4. As used in this Article, sexual orientation means having or being perceived as having an orientation for heterosexuality, homosexuality or bi-sexuality.

ARTICLE XXIV - AMERICANS WITH DISABILITIES ACT

1. ENGINEER and its subconsultants shall comply with the terms, conditions, and requirements of the Americans with Disabilities Act of 1990 (P.L. 101-136), 42 U.S.C. 12101, as amended, and regulations adopted thereunder contained in 28 C.F.R. 26.101-36.999, inclusive, and any relevant program-specific regulations.

ARTICLE XXV - GENERAL PROVISIONS

1. Integration. This Agreement, including the Exhibits and the Recitals, all of which are true and correct and are incorporated by reference as a part of this Agreement, constitutes the complete and integrated Agreement between the parties with respect to the matters recited herein, and supersedes any prior or contemporaneous written or oral agreements or understandings with respect thereto.

2. Severability. The legality of any provision or portion of this Agreement shall not affect the validity of the remainder.

3. Amendment. This Agreement shall not be modified, amended, rescinded, canceled, or waived, in whole or in part, except by written amendment signed by duly authorized representatives of the parties.

4. No Third Party Benefit. This Agreement is a contract between CLIENT and ENGINEER and nothing herein is intended to create any third party benefit.

5. Governing Law and Jurisdiction. This Agreement shall be administered and interpreted under the laws of the State of Nevada. Any action at law, suit in equity or judicial proceeding for the enforcement of this Agreement or any provision thereof shall be instituted only in the district courts of the State of Nevada, County of Washoe.

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ARTICLE XXVI - DUE AUTHORIZATION

Each party represents that all required authorizations have been obtained to execute this grant and for the compliance with each and every term hereof. Each person signing this Agreement warrants and represents to the other party that he or she has actual authority to execute this Agreement on behalf of the party for whom he or she is signing. A facsimile signature on this Agreement shall be treated for all purposes as an original signature.

Duplicate originals. This Agreement is executed in one duplicate original for each party hereto, and is binding on a party only when all parties have signed and received a duplicate original.

IN WITNESS WHEREOF, CLIENT has caused this Agreement to be executed by the City of Reno and the City of Sparks and ENGINEER have caused this Agreement to be executed, all as of the day and year first above written.

CITY OF RENO

By: _____
Robert A. Cashell, Sr., Mayor

ATTEST:

By: _____
Lynnette Jones, City Clerk

CITY OF SPARKS

By: _____
Geno Martini, Mayor

ATTEST:

By: _____
Sparks City Clerk

APPROVED AS TO FORM

By: _____
Susan Ball Rothe
Deputy City Attorney

APPROVED AS TO FORM

By: _____
Chet Adams
City Attorney

ENGINEER

By: _____
Raul E. Aviles, P.E., Vice President



3860 GS Richards Blvd.
Suite 100
Carson City, NV 89703
tel: 775883-2583
fax: 775 883-7928

EXHIBIT A

August 7, 2014

David Kershaw, PE
Associate Civil Engineer
City of Reno
P.O. Box 1900
Reno, Nevada 89505

Subject: TMWRF Electrical Systems Upgrade Phase II – Construction Management Services Proposal

Dear David:

CDM Smith is pleased to submit this letter proposal to provide Construction Management (CM) Services for the Truckee Meadows Water Reclamation Facility (TMWRF) Electrical Systems Upgrade Phase II, City Project #I100062.

This letter proposal provides additional services not included under the current CDM Smith electrical design agreement and is organized into five sections: Project Understanding and Scope, Project Approach and Critical Issues, Work Plan, Proposed Schedule, and Project Fee.

1.1 Project Understanding and Scope

CDM Smith is currently providing engineering services for the City of Reno to improve the reliability and safety of the existing electrical system at the Truckee Meadows Water Reclamation Facility (TMWRF). This effort started in 2010 with the Electrical Systems Improvement 2011 project which addressed critical upgrades and improvements to the existing plant electrical system.

The City of Reno requested CDM Smith to provide CM services to support the City during the construction phase of the project. The scope includes providing a part time Construction Manager and a part time Resident Engineer for a construction period of 12 months.

The City intends to provide a single CM consultant to act as the City's representative and to perform full contract administration and construction management responsibilities for this project.

The scope of work for the contract will cover the entire Phase II of the TMWRF Electrical System Upgrade. Numerous treatment processes and the normal daily activities of plant operations will be impacted. Therefore, it is critical that the CM fully understands the scope of all the construction





David Kershaw, PE
August 7, 2014
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contracts as well as existing plant operations, and most importantly, how they may impact each other at different points in the program. The CDM Smith Team has that complete understanding and our first priority is to monitor all construction and plant activities so that:

- Effluent quality is never in jeopardy
- Safety of plant staff is never compromised
- Plant operations continue with the least amount of disturbance
- And, that the construction is completed on schedule and budget without contractor's claims for delay or extra compensation

Additionally, TMWRF intends to have other construction contracts implemented during the construction period of the I100062 contract that the CM must be prepared to coordinate in concert with the construction work under this scope. These other contracts, which are outside of the scope of the CM project but could also impact plant operations and this project, include:

- Headworks Short Term Improvements
- Ameresco Energy Project
- Nitrification Tower Valve Rehab Project
- Gas Conditioning Project (Projected completion date 12/14)
- Nitrification Recirculation Pumps and Drive Replacement

CDM Smith's proposal includes a separate updated detailed scope of services work and estimates of expenditures provided as the following appendices:

- Attachment 1 – Scope of Services
- Attachment 2 – Estimate of Expenditures
- Attachment 3 – Construction Management Schedule



David Kershaw, PE
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1.2 Project Approach and Critical Issues

1.2.1 Project Approach

The CM consultant, in partnership with the TMWRF engineering and plant staff, is responsible for coordinating the construction contractors to meet the goals for the Phase II electrical upgrades of the TMWRF and successfully deliver a construction project within budget, on schedule, and of superior quality. This requires a CM consultant with demonstrated ability to perform these services in an operating treatment plant, and who has a documented history of effectively managing the administration and construction of similar large scale wastewater treatment plant upgrade projects. It also requires a CM with the understanding of scope, Maintenance of Plant Operations (MOPO) requirements, and sequence of construction for construction contracts. For the last four years CDM Smith has assisted the City with the electrical infrastructure upgrades and we have the experience and plant knowledge and familiarity to contribute to the success of this construction project. By combining CDM Smith's knowledge and experience as the designer of the Electrical Systems Upgrade and our experience/expertise as a national leader for CM on WWTP Electrical upgrade/expansion projects, CDM Smith provides the plant with a CM consultant with extraordinary expertise and experience.

Leading our team as the Construction Manager is Raul Aviles, who has over twenty years of direct experience providing design and construction management services for wastewater and water treatment plant upgrades and expansions ranging from \$10M to \$300M. He has a solid record of delivering completed projects on time, on budget, and with no contractor claims.

The key activities in each phase of the construction program is based on working in partnership with the plant Operations and Maintenance (O&M) staff and the Contractor while closely monitoring the contractor's schedule, work, and safety procedures to confirm that the projects meet all contractual requirements and are completed on schedule and with minimal impact to the plant operations.

1.2.2 Critical Issues

The CDM Smith Team offers a successful working relationship with the plant along with the relevant expertise that matches the needs of this construction program. Our Team has an excellent understanding of the critical issues that this project will be challenged with and believes a clear focus on the following activities and potential issues will be essential for constructing and commissioning the new facilities electrical upgrades on schedule and budget.



David Kershaw, PE
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1.2.2.1 Construction Management Plan (CMP)

At the start of the project, the CDM Smith Team will work with the Contractor and the Plant to complete a project specific Construction Management Plan that will be used by all stakeholders. The Construction Management Plan is a document that is designed to make certain that a standard set of procedures and protocols exist and that they conform to the Project and City's Performance Requirements. These project procedures are to be performed consistently and routinely to facilitate project coordination, communication, policies and procedures.

At a minimum, the CMP will address: organization, roles and responsibilities, communication protocols, contract administration, submittals, RFI's, extra work orders, progress payments, claims, project controls, schedule, start-up and testing, final completion, closeout, health & safety, emergency management and reporting. The CMP is a sound plan for construction management, but it is also a living document that is adaptive to incorporate plant concerns, issues, and procedures that may evolve throughout the construction program.

1.2.2.2 Project Communication

The Construction Management Plan incorporates a detailed communication plan which provides a free flow of information and brings together the appropriate parties to address specific construction issues as they arise. The CDM Smith Team understands the importance of maintaining sound and positive working relationships with the plant staff and the Contractor.

Our proposed Resident Engineer (RE), Ms. Erica Yarborough, the project Engineer responsible for the Phase II Electrical Systems Upgrade, is fully knowledgeable of the project details and has worked closely with the key staff at the TMWRF over the past two year period. Ms. Yarborough understands that issues will arise over the course of this project. Her key focus will be to avoid "misunderstandings" and concentrate on working together with the Contractor to resolve issues. As the CM and RE, we will establish positive relationships to set an example with the construction contractor.

1.2.2.3 Permitting/Environmental Compliance

The contractor will have to obtain a permit from the City of Sparks and maintain compliance with the air permit that the Plant has with Washoe County during the use of the emergency generators for temporary construction power. The CM must understand the requirements of each permit, reporting responsibilities as well as the maintenance requirements of the permits. We will review the requirements with the Contractor at the progress and coordination meetings to maintain compliance with new and existing permits.



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1.2.2.4 Contract Coordination

The City will have a single CM contract to provide overall management of the project. A key success factor will be the implementation of a plan to manage the coordination of the site logistics, multiple outages, communication and contract administration, as well as start-up, testing, and commissioning. CDM Smith has already initiated this process in the development and coordination of the Construction Sequence incorporated within the Construction Documents Scope.

The CDM Smith Team will further this program by conducting regular field progress and coordination meetings with the contractors to review the “look ahead” schedule for each contractor and identify any potential conflicts, interface issues, access issues, etc. and will address them head-on for resolution well in advance of the actual occurrence. The “look ahead” schedules will be used to update the overall program schedule and to track overall program progress.

Generally, only the prime contractor will attend these meetings, however, sub-contractors may be requested to attend if their work is significant enough to impact another contractor. This approach was quite successful on other projects. The Construction Management Plan will set the procedures for administrative coordination and the CDM Smith Team will be vigilant in assuring adherence to coordination protocol. It is our intention to make this coordination second nature to our staff so as to maintain the focus at all levels of the project. It is our experience that when the contractor senses a well-coordinated CM team, there is improved communication on all levels.

1.2.2.5 Construction E-Room

CDM Smith will use an E-Room for the document management system to be utilized by the contractor, TMWRF Staff, and the City. Ms. Erica Yarborough will coordinate the document management system for the entire program. Considering the many active participants that will need coordinated information, a common document management system provides the tool that affords each party the ability to obtain the information in an expedient manner; this also will be key on making sure the shop drawings are reviewed and approved in a timely manner.

1.2.2.6 Safety

The CDM Smith Team understands and agrees with the City’s and TMWRF firm stance that site safety including implementing procedures to protect all onsite personnel is paramount to the successful completion of the construction projects. Our Team will make project safety our highest priority and we will be vigilant in monitoring the contractor’s compliance with the approved Health and Safety Plans (H&SP). The contractor will submit a site specific H&SP that CDM Smith Team will review and provide our comments to TMWRF for final approval. The H&SP must include all requirements of the



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Health and Safety specifications including Arc Flash and confined space working requirements. Upon approval, our Team will monitor the contractor's compliance with the provisions of the H&SP and notify both the contractor and TMWRF if non-compliance is observed. Such notice will contain a requirement for prompt correction.

1.2.2.7 Maintenance of Plant Operations (MOPO)

The CDM Smith Team is keenly aware of how critical adherence to established MOPO procedures are to an operating facility and the potential impacts to plant operation and maintenance if the process equipment is incorrectly operated or experience loss of power or the replacement sequence is performed incorrectly. Our knowledge of the MOPO for the Upgrade allows us to start the CM project with an excellent understanding of the MOPO issues of the site.

CDM Smith will review all the MOPO requirements of each scheduled outage to ensure a well-coordinated sequence of construction is followed to maintain plant operations. It is our intention to complete the project without any unplanned interruption to plant operations and to coordinate utility work to minimize any interruptions. The CDM Smith Team brings this experience through our proven performance during the Phase I Electrical Systems Upgrade in which the Plant Main Switchgear was replaced in its entirety without any downtime and on schedule.

1.2.2.8 Staging and Sequence of Construction

CDM Smith developed the sequence of construction included in the Phase II Electrical Systems Upgrade design contract and will work with the other Design Consultants currently performing work in the facility to review their areas of work and define overlapping areas and issues. Ensuring that each contractor does not interfere with another contractor's work area through the proper sequencing of the construction work will be critical to keeping the Electrical Phase II contractor on schedule and minimizing potential conflicts. Understanding all issues that will impact staging areas and the sequence of construction including traffic, plant operation, utility work, and shut down of critical processes is critical to allowing a contractor to maintain his schedule and perform his work in an efficient manner.

1.2.2.9 Underground Electrical Duct Banks and Utilities

Although as-built drawings exist for the site, they are often inconsistent with the actual location of the existing underground electrical duct banks and buried utilities. Our experience with construction on other operating treatment plants confirms this unfortunate reality. It will be critical to the construction schedule that existing buried utilities be located through a test pit program at the initiation of each scheduled task to minimize the potential to "uncover" existing utilities in locations not anticipated which may cause service or process issues as well as delaying planned work to "repair or relocate" the



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uncovered utility. Our design staff will work closely with the TMWRF plant staff to locate existing utilities and we will continue this effort in reviewing MOPO to identify to the extent possible, actual utility locations before excavation.

1.2.2.10 Site Restoration

The City will be undertaking at least five construction contracts during the proposed project schedule for this CM project. Each contractor will be responsible to perform temporary restoration of the areas within their work zones. In addition, since site access roads will be utilized by various contractors as well as the TMWRF, it will be difficult to state which contractor should be responsible to maintain and repair the common site access roads that may be damaged during the construction. The Electrical Phase II Electrical Systems Upgrade contractor should also perform the site restoration as part of their scope of work. Site restoration will include at a minimum:

- Curb replacement and repair
- Roadway paving and repair
- Removal of the contractor trailer area
- Landscaping
- Tree removal
- Site seeding and plantings

1.3 Work Plan

The CDM Smith Team has developed the following Work Plan to provide a clear understanding of our step by step approach to management of the tasks outlined in the scope of services.

1.3.1 Task I – Maintenance of Plant Operations

Prior to the start of work, the CDM Smith Team will review the proposed contractor MOPO and review of each MOPO activity. The step by step procedures will be analyzed based on a field review of the processes and equipment involved in the activity. Upon completion of the analysis, a meeting will be held with the contractor and maintenance staff to review the procedures and steps to be followed and allow everyone to understand the proposed work. The O&M review will focus on improving procedures to mitigate any disruption or interference to the regular operations and maintenance of the



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facility, and to minimize any plant interruptions throughout the duration of the project. All changes to the design MOPO procedures will be submitted to and discussed with TMWRF and the City prior to issuing any approved changes so that all parties are on the same page.

Once the MOPO procedures are finalized we will confirm the project schedule includes each activity and that the estimated start and completion dates are reasonable. This schedule will be reviewed in conjunction with the plant O&M staff to give them the “big picture” for planning around the activities. Several weeks prior to the actual date of each activity, we will notify the plant staff and the detailed procedures will be reviewed again in detail. It should be noted that many of the MOPO activities will be “operationally constrained” which means that typically the duration of the required outages will not exceed a maximum of four hours. This requires flexibility by both the construction and the O&M staff to be prepared to reschedule MOPO activities quickly so as to minimize any impact on the project schedule. When the activity actually begins, a CDM Smith Team representative will witness the implementation of the equipment modifications and confirm that all the required steps have been taken in accordance with the approved MOPO plan. Many of the MOPO activities will be performed in a phased manner, so the CDM Smith Team will monitor the staging of activities until the MOPO activity is complete and operations are restored to the design intent.

1.3.2 Task II – Construction Phase Services

The CDM Smith Team will use the E-Room capabilities to manage the construction phase services for this project and the Construction Management Plan will provide the road map for these services to insure that procedures and the shop drawing review and approvals are timely and consistent. The CDM Smith Team’s approach to managing the multiple contracts is to provide a Construction Manager (CM) and a Resident Engineer (RE) who will manage the construction activities and lead communications with the TMWRF, the City, and the contractor. The CM will lead the effort in project controls, significant project issues, labor issues, extra work order negotiations, and will be the point of contact for the City. The CM will be assisted by the RE who will lead the field effort working with the TMWRF maintenance and operations staff on monitoring the work, preparing inspection reports, reviewing contractor payments, providing interpretations and clarifications of the contract documents, monitoring T&M work, and other routine field duties as described later in this proposal.

The following outlines the daily, weekly, and monthly responsibilities of the RE:

1.3.2.1 Site Communication

The City and TMWRF will provide a working space with for the CM and RE at the TMWRF Maintenance Shop. CDM Smith will provide other internet communications (wireless hot spot),



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computer equipment, and tools required to perform our services. These costs are included under the Estimate of Expenditures Section.

To maintain site communications with the operation and maintenance staff, we will request that TMWRF assigns dedicated radio communication units for our CM and RE. CDM Smith will provide under the project a dedicated Reno/Sparks cell phone for our onsite staff.

1.3.2.2 Submittals

Prior to the initiation of shop drawing submittals, the CM Team will review the Contractors master submittal list and schedule and discuss it with the appropriate plant staff. Comments will be provided and returned to the Contractor until there is a final agreement on the list of submittals and their schedule for each contract. Once this is completed, the submittal list will be incorporated into the E-Room to allow the tracking of all submittals to occur. Shop drawing submittals will be generated by the contractors and submitted for review through the E-Room. At the start of a project, the contractor and the CM will develop a template for the electronic submittal and distribution of submittals. The RE will establish who, within CDM Smith, will receive each discipline's submittals, and the contractor will have the ability to direct a shop drawing for that discipline directly to the assigned reviewer (s). Once the submittal is reviewed and the appropriate review code has been assigned, the reviewer will return it to the contractor through the E-Room. CDM Smith will also review the submittals to confirm they have been coordinated with field conditions and that there are no conflicts with the actual layout and installation of equipment bases, conduits, duct banks, bus ducts, etc.

We will utilize the E-Room to develop and maintain status logs to track all submittals. In this administrative role, we will track the review durations and notify the reviewers when they are not being returned within the time limits set forth in the contract. We will also advise the contractor if submittals are required relative to the progress of the work but have not yet been submitted. The review status of open or missing submittals will be discussed during each Progress Meeting to assure the submittal process is working effectively.

As CM, CDM Smith will monitor that all submittals are provided in the TMWRF formats required to be included in the Electronic O&M Manual (EOM).

1.3.2.3 Requests for Information

Similar to submittals, CDM Smith Team will manage the RFI process and track the status and timeliness of reviews. RFI's will be submitted through the E-Room but the primary reviewer will be the RE, followed by the CM. We will review all RFI's and respond directly to those generally associated with field or constructability issues. If we determine that the RFI involves a design interpretation or



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clarification and requires a response, we will direct the RFI to the appropriate discipline within the project team to properly address the request. The reviewer will then review the RFI and return the response to the CM through the E-Room. We will then review the response, coordinate it with any field issues, and return it to the contractor through the E-Room.

1.3.2.4 Progress and Coordination Meetings

Coordination and progress meetings are key components of the CMP and provide an open forum for discussion. The meetings allow all parties to coordinate and discuss issues to address potential impacts to construction progress. It is vital that these meetings be productive and meaningful in moving a project forward. Setting a schedule for the meeting and maintaining it is critical to maintaining the progress of the program. To keep the meetings productive and allow everyone to address any project issues/obtain direction; it is recommended that progress meeting be held once a month while coordination meetings are held every other week. Progress meetings will be held and will include the Contractor, TMWRF Operations and Maintenance staff, along with the CM, RE, and the City. Coordination meetings would include the RE and the TMWRF Operations and Maintenance Staff. If issues arise requiring additional or more frequent meetings in excess of the proposed coordination meetings, CDM Smith will contact the City to address the additional services required and adjust the contract as needed.

The CDM Smith Team will schedule and conduct the progress and coordination meetings and will prepare and distribute an agenda prior to each meeting and minutes after the meeting. A typical progress meeting agenda will include:

- Site Safety
- Quality Control
- Construction Schedule/3-Week Look Ahead
- Equipment Delivery Schedules
- Field Observations
- Coordination Issues
- Design Issues
- Submittal and RFI Status



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- Extra Work Order Status
- Environmental Compliance
- Other Issues

A typical Coordination Meeting agenda will include:

- Site Safety
- Site Coordination (Presentation of 3 week look ahead by Contractor)
- Outage Planning, Coordination and Execution
- New Issues (Discussion of Specific Construction Issues)

1.3.2.5 Review Contractor Payments

The CDM Smith Team will review and recommend approval of the contractor's Schedule of Prices (SOPs) at the start and the approved SOP's will become the basis for the monthly payment requests. We will establish schedules for contractor payment reviews, approvals and submission to the City for approval and payment. Typically, a "draft" copy of the contractor's request will be initially submitted and the CDM Smith Team will review the request, and perform a walk-through with a TMWRF representative, to confirm the actual work performed. A review meeting will then be held with the contractor to reconcile any discrepancies and the contractor will then submit the final request for payment. The CDM Smith Team will again review it for confirmation that all items have been reconciled and will then forward the payment request with our recommendation for approval to the City.

Each payment request must be clearly presented to allow the review to move ahead smoothly and established schedules must be closely monitored and adhered to so the City can plan on routine payment processing each month. We will also review all payment requests for statutory compliance i.e., as-builts, certified payrolls, wage rates, etc. and we will prepare earned value graph's each month to show relationship of cost to schedule adherence.

Contractor payments will also be reviewed for compliance with the State of Nevada prevailing wage rates for Washoe County based on certified payrolls submitted with the monthly payment requests. We will also confirm adherence to the State of Nevada administrative codes (NACs) regarding contractor payments.



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Additionally, our monthly reports will include earned value graphs which will clearly compare the actual progress of the work to the cost loaded schedule for each contract. This monthly snapshot will provide an early indication of costs exceeding progress and corrective measures can be implemented before having a negative impact on the project schedule.

1.3.2.6 Extra Work Orders/Extension of Time

Efficient procedures for authorizing, evaluating, negotiating, and finalizing extra work orders will be developed in the Construction Management Plan at the start of the project. Our proposed procedures for extra work order administration are designed to control the authorization and execution of extra work while minimizing the delaying effects upon construction progress. Extra work order requests may be initiated by the City, by the CM, or by the contractor. The contractor may also submit claims for construction changes when the contractor feels additional compensation is warranted for work performed that is allegedly beyond the scope of the contract documents.

We will assign a potential extra work number to each request. Each PCO will be logged and monitored to maintain an accurate update of additional anticipated construction costs or potential claims. Upon receipt of a proposed change from any party, we will promptly discuss the change with appropriate members of the City, and a decision will be made on the best manner in which to proceed in accordance with the contract documents.

The CDM Smith Team will review all potential extra work order requests submitted by the contractor for justification, cost reasonableness, and schedule impacts. The change request will first be reviewed to confirm that it is based on a legitimate omission or discrepancy in the contract documents and is justifiable as an added cost to the contract. An independent cost estimate will then be performed by the CM Team to establish a second opinion of probable cost and to use as the basis for negotiation of the change. A record of negotiation will be documented and we will prepare the extra work order in the format, and with the documentation required, for processing by the City. CM or City requested extra work orders will be handled similarly but with the CM issuing the change to the Contractor and then requesting a cost to review against the prepared estimate. In the case of time and material or unit price work, we will set up accounting procedures, documentation requirements, and records to confirm accurate tracking of costs. Similarly, schedule impacts will be reviewed independently by our construction scheduler and time extensions will be negotiated based on the review and the impact to the critical path of the project. Schedule impacts that only consume float time will not be considered legitimate time extensions to the contract.

Our extra work order tracking log will monitor the status of every change request and will also provide a reason code for each change to identify the cause of the change, as follows:



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- City initiated
- Field condition
- Design omission
- Contractor issue
- Credit

If an extra work order is required, our Team will notify the Contractor to proceed after the City has agreed to the extra work order. As soon as all documentation is assembled in support of the extra work order, a review session will be held with City. This session will include reviewing the necessity for the change, reasonableness of the costs, and adequacy of the supporting documentation. Final copies of the extra work order will then be prepared for distribution to the contractor, designer, and City using the E-Room.

1.3.2.7 Construction Scheduling

The CM Team recognizes that completion of the project schedule is a matter of the highest priority. Endorsing this premise, we have included a scheduling component that is the core strength of the CM Team. Our philosophy is to be proactive, not reactive. The critical path for each construction contract will be reviewed as discussed herein. The City will always be advised, proactively, by the CM Team of the effect of any issue, change, or decision on the project's schedule. This is further discussed in Task V of this proposal.

1.3.2.8 Safety Program

The CDM Smith Team understands the importance of maintaining a safe work site and environment. A key component to the Contractors site safety program is defining the work environment such as Electrical safety, fall protection, confined space, etc., to assure the work is being performed with the correct safety equipment, procedures, access equipment and locations, if applicable. Monitoring of the work environment designation will be critical to performing the work in a safe and efficient manner.

Any deviations from this program will be communicated to the contractor and the City and we will follow up to make certain any and all deviations are promptly corrected. The CM will receive and document any accident reports on the project site.



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The CDM Smith Team will also develop and follow our own health and safety plan for the project. This will include procedures for entering confined spaces, personnel project equipment requirements, and reporting responsibilities.

1.3.2.9 Start-up and Testing

Construction of the upgraded/expanded facilities is only the beginning of a successful construction program. Without the successful testing and start-up of the new facilities, the City will not receive the benefits of the new work. Therefore, the CDM Smith Team will proactively plan, schedule, and monitor start-up and testing of the electrical equipment and assure the process is well coordinated and scheduled in advance of actual testing so the TMWRF operation staff is well aware of the schedule and that it will occur with limited interruption to daily operations. Similarly, commissioning and training will be planned well in advance to coordinate with existing facility operations and staff availability.

1.3.2.10 Final Inspection/Project Closeout

As each of the contractor work nears the project closeout phase, the CDM Smith Team will conduct preliminary and final observations of the work and develop punch lists to document all deficiencies noted. The CDM Smith Team will also perform follow-up observations to monitor the contractor's correction of punch list items.

Closeout of major construction contracts first requires a well-organized document control system from the start of the project. The E-Room will provide this organization and we will work with the City at the close of the project to establish a complete record of all project documentation including submittals, correspondence, contract documents, warranties, as-built drawings, cost accounting, and O&M/vendor manuals.

1.3.2.11 Non-Shop Drawing Submittals

The E-Room will also be utilized to track non-shop drawing submittals such as O&M manuals, spare parts, warranties, etc. The CDM team will develop a list of O&M manuals, spare parts, and warranties to be included in E-Room to allow the tracking to occur. We will track the progress of O&M manual preparation and address all review issues in the same manner as shop drawings. The tracking of warranties will be completed in a similar manner.

O&M manuals, warranties, and spare parts will be tracked electronically and stored in a designated TMWRF location as they are submitted. We will verify that the approved O&M manual, warranty, or spare part has been provided as well as the required number is provided and utilizing our standard transmittal form will turn it over to the City. The transmittal will be signed by the designated TMWRF



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employee so there is documentation that the City has received the required number of documents or parts. This transmittal will be entered into the E-Room.

1.3.2.12 General Services

In addition to the services above, the CDM Smith CM Team will coordinate and monitor the contractor's progress of the work, monitor the General Conditions for each contract, communicate and coordinate with the City and TMWRF O&M staff. We will endeavor to avert the installation of work, material or equipment which has not been approved or does not conform with the requirements of the contract documents. Any such finding will be promptly communicated to the City and others as appropriate and we will follow-up to confirm that any deficient work is properly corrected. Other routine services include:

- Develop and maintain the project contact list.
- Review the contractor as-built drawings.
- Monitor the development of the draft O&M manual to confirm its completion prior to start-up and testing of equipment and facilities.
- Assist the City in determining and documenting the dates of partial utilization and beneficial use of all electrical systems, facilities and equipment.
- Collect and maintain schedule and other items to be reviewed and turned over to the City.

1.3.2.13 Material and Special Inspection

In the event the CM deems necessary to seek expert advice for material and special inspections, the CM will solicit proposals from local qualified special inspection firms for soils, concrete, steel, welding, and other required materials testing and review and recommend the most qualified firm to the City for use on the project. We will then coordinate their services with the Contractor to make certain all materials are tested in accordance with the contract documents. The cost of this testing is included in an allowance to our Estimate of Expenditures. Should the City wish to perform these additional services, we will utilize the allowance to track costs separately and be invoiced through this contract.



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1.3.3 Task III – Construction Phase Inspection Services

1.3.3.1 Resident Inspection

Our Construction Management team will inspect the installation of all facets of the work described in the construction contract documents included in this CM project. CDM Smith will work with a tablet computer with a built-in wireless modem to allow our RE to be able to access electronic versions of shop and contract drawings in the field, document changes to drawings, take photos of field conditions and associate the photos with project files, and potentially use GPS capabilities to locate key features (underground conduits, pipes, building corners, etc.) in the field. The tablet will be updated daily to include the latest project information for use in the field. When the RE goes into the field with a tablet he will have all project information with him that he can instantly access including shop drawings to verify the work is correctly installed. All field inspection documentation recorded by the Tablet will be uploaded into E-Room.

1.3.3.2 Resident Engineer

The Resident Engineer (RE) will prepare a Daily Inspection Report (DIR) of construction completed each day of the two continuous weeks the RE is on site. We propose to have an RE for two continuous weeks every month and for major outages. The scheduled effort will be dependent on activity but limited to the approved level of effort. The RE will be responsible to ascertain that the inspection staff is observing the work in accordance with the contract documents and appropriately reporting project activities. Specific responsibilities include the following:

- Conduct monitoring of the construction work for conformance with the contract documents and approved shop drawing submittals.
- Compile Non Compliance Reports (NCR) for any installed work found to be deficient or not conforming to the contract documents.
- Assist Construction Manager with review of contractor payment requests.
- Review material deliveries for conformance with approved submittals.
- Coordinate interpretations of the contract documents with the contractors.
- Oversee all code required inspections and testing and provide written documentation of the results.
- Witness, coordinate, and document all required field testing activities.



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- Analyze and provide recommendations on extra work orders.
- Collect and maintain field record information for use in reviewing the contractor's record drawings.
- Prepare "punch lists" and conduct contract close-out inspections.
- Monitor and keep the City informed of construction progress, potential or pending extra work orders, schedule status and any areas of concern on a continuing basis.
- Maintain accurate records to document costs associated with time and material extra work orders.
- Monitor use of site, storage, daily cleanup activities of the contractors to determine conformance with the requirements of the contract documents.

1.3.3.3 Daily Inspection Reports

Daily Inspection Reports (DIRs) will be written concisely and clearly without subjective judgment, and will provide a comprehensive written record of the work progress. All inspection reports will be entered into E-Room for record. A separate DIR will be completed daily for each two week period. The Daily Inspection Report includes:

- A record of the contractor's activity on the work being inspected
- Log all equipment on the job site (in use or not)
- Log all equipment being used on the job
- Record all construction personnel on site including management and trades
- Record all activities worked on by Item number in the Construction Management Plan schedule
- Record all material deliveries to site
- Record of tests conducted
- Notable discussions with the contractor. Observe safety regulations and notify contractors of any observed unsafe conditions
- Taking digital photos and enter in E-Room Photo Log Folder



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- QA/QC

In case of any contract disputes, the Daily Inspection Reports assume legal importance, and therefore should be objective, complete, and accurate. Daily reports shall be entered into the E-Room daily.

1.3.4 Task IV: Reporting and Information Management

The CDM Smith Team understands the critical importance of keeping all parties informed throughout the life of the project. Without the implementation of a well-structured communication program a project will fail within the first few months. As stated above, the Construction Management Plan will provide the template for the communication plan and will require a monthly report be developed by the CM to provide the City with a complete understanding of the project status and issues. At a minimum the monthly report will include the following items by contract:

- Project Status
- Monthly Progress with progress photos
- Monthly look ahead including Construction Management Plan Schedule
- Meeting minutes
- Budget Status including certified payrolls and payment requisitions
- Significant Issues
- Action required by the City
- Action required by TMWRF Staff
- The following logs/reports:
 - Shop Drawing
 - RFI
 - Daily reports
 - Correspondence



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- Testing
- Startup
- Special Inspections
- Other Information pertinent to the project

To develop the monthly report, the CM must track, maintain, and review a significant amount of information. The use of the E-Room will allow this tracking and maintenance to be accomplished in an efficient and organized manner.

All documents generated on the project will be uploaded into or communicated through the E-Room. In addition, each required report will be set up in the E-Room to allow them to be issued each month. Items that will be tracked and stored in E-Room include but are not limited to the following:

- Contract Documents (contracts, insurance, bonds, drawings, specs, addenda, liens)
- Management (Emergency contact list, staff and contractor staff directory)
- Shop Drawings
- RFIs
- Permits
- Daily Reports (Inspection, Safety and CM)
- Regulatory issues, milestones, reports
- Monthly reports
- Project Correspondence (City, contractor, designer, regulatory, local)
- Extra Work Orders
- Special Inspections
- O&M Manuals



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- Payment Requests
- Meeting Minutes (Progress, coordination)
- As-built drawings
- Spare Parts
- Warrantees

1.3.5 Task V: Construction Management Plan Scheduling Services

The Contractor will develop detailed Construction Management Plan schedules in compliance with the contract documents and these schedules will reflect their means and methods for accomplishing the work. The CDM Smith Team will review and analyze the schedules on a monthly basis for completeness, logic, and reasonableness. The Contractors' schedules will serve as the contract baseline by which their progress will be measured and tracked. We will continually review, monitor actual progress, and resource usage, and record it against planned logic, sequencing, and quantities installed to identify deviations from the approved schedule. When issues cause delays to develop in the field, the CDM Smith Team will suggest workaround solutions to re-sequence the construction activities and mitigate the delays.

During the schedule development process for each construction task we will pay particular attention to obtaining a schedule that provides a firm basis for progress measurement. At a minimum we will perform a detailed review of the following major components of the schedule including:

- Activities provided for entire scope of work.
- Appropriate logical relationships without extraneous "preferential" logic.
- Appropriate level of description, coding, resource allocation, calendars and constraints for each activity.
- Consistent production estimates and activity durations.
- Appropriate use of logs or "steps" to describe elements of activities that are not evident with a single description.

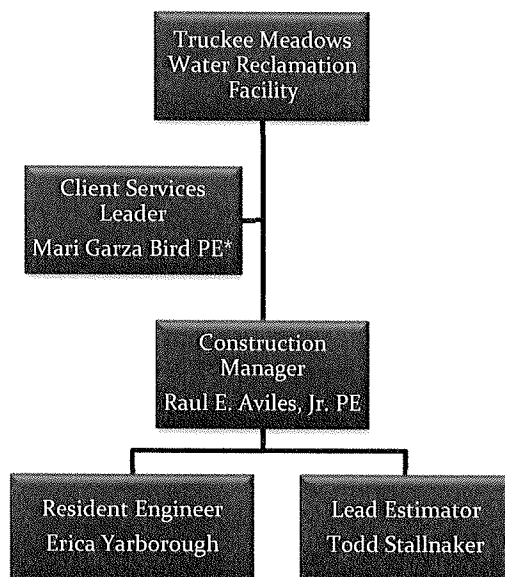
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- Verification that logic does not include inappropriate techniques such as negative lags, float sequestering, start-to-finish relationships, non-contractual constraints, undefined calendars, and the like.
- Verification that proper submittal, approval, fabrication, delivery, storage, and other periods are defined, logically sequenced and consistent with the contract documents.

At monthly intervals the CDM Smith Team will review the progress updates from each contractor and contract package. After validating progress during this period, we will perform more intensive Construction Management Plan analysis techniques to fully analyze the progress update to evaluate the project status, forecast risk, evaluate changes to the baseline, and offer expert response to the data provided. In parallel with this, alternate sequencing and staging of construction packages will be constantly evaluated for potential time savings and determination of optimum contract delivery methods. Our goal is to eliminate the linear-most portions of the schedule on the critical path through constant evaluation of potential, concurrent construction operations, and/or more efficient means and methods of construction.

2.1 Project Team and Management

CDM Smith is committed to providing services from our Carson City, Nevada office. CDM Smith proposes a project team led by Raul Aviles who served as project manager for the TMWRF Electrical Systems Upgrade Phase II project. He will serve as the Construction Management primary contact with the City and be responsible for communications, budget, schedule, quality assurance, and deliverables.



***Not registered in Nevada**



David Kershaw, PE
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3.1 Management Control Program

The project will be executed by CDM Smith under the direction of Ms. Mari Garza-Bird, serving as Client Services Leader, Mr. Raul E. Aviles serving as Construction Manager and Ms. Erica Yarborough as Resident Engineer. Ms. Garza-Bird's responsibility will be to ensure that all of CDM Smith's quality management practices, budget, and schedule are adhered to and the appropriate personnel are dedicated to this project. Mr. Aviles' role will be to oversee the day-to-day construction management activities by coordinating the work of CDM Smith's staff and communicating project status and issues to TMWRF. Mr. Aviles will communicate the progress of the project on a monthly basis. In addition to managing the design portion of the project, CDM Smith will work with TMWRF in managing the total construction aspects of the project, including procurement, construction, and operation to meet all project goals.

Cost and Schedule Control Methodology

Mr. Aviles will use CDM Smith's computer-based Project Management Control System consisting of numerous tools and reports to control all elements of project costs. This produces weekly and monthly reports that provide accurate, complete, up-to-date information that will aid Mr. Aviles in effectively tracking the progress of project tasks, and to identify early any deviations to planned budget and schedule so that corrective actions can be implemented. System reports show details of expenditures versus estimates and provide budget tracking on an earned value basis and the analysis and updating of budget projections.

4.1 Proposed Schedule

Our team is available and ready to begin working immediately on this Construction Management Assignment. Our proposed schedule, as shown in Attachment 3, shows anticipated progress of work, key milestones, and review periods.

5.1 Project Fee

CDM Smith proposes to complete the services defined in the CDM Smith scope of services (see Attachment 1) on a time and materials basis not-to-exceed \$398,650.00 and includes a \$25,000 allowance for materials testing and special inspections. CDM Smith will invoice the City of Reno on a monthly basis.

CDM Smith appreciates the opportunity to work with TMWRF on this important project. CDM Smith is very excited about this opportunity to continue the work we started in 2010 with both the City's staff and the TMWRF Operations and Maintenance Staff in delivering a successful project. Please feel free



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to contact Raul at 775-883-2583 or any of our team members, should you have any questions. We would be happy to meet with you to review our proposal in detail.

Very truly yours,

A handwritten signature in cursive script that reads "Mari Garza-Bird".

Mari Garza-Bird PE, BCEE
Vice President
CDM Smith Inc.

A handwritten signature in cursive script that reads "Raul E. Aviles".

Raul E. Aviles PE, CPE, CEM, CEA, GBE
Vice President
CDM Smith Inc.

Attachment 1

Electrical System Upgrades Phase II Construction Management Scope of Services

The following scope of services provides Construction Management Services for the Truckee Meadows Water Reclamation Facility (TMWRF) Electrical Systems Upgrade Phase II project.

CONSULTANT will provide additional services to cover the expanded scope of the original project. The additional design scope of services included switchboard replacement and modifications for the Reuse Pump Station, LVDC 4 MCC Distribution Switchboard, redundant medium voltage underground feeders, transformer capacity upgrades for the Nitrification Building, Medium Voltage Breaker Cell Modifications, pavement repairs for the new underground feeders, safety bollards for the new electrical equipment, and new fencing for the Reuse Pump Station Electrical Substation.

Due to the criticality of the Plant Electrical Systems upgrade and potential effects that power interruption could have to the treatment process during construction, the OWNER has requested that CONSULTANT provide a Construction Management proposal to address the project construction complexity and risk.

The existing Electrical Systems Upgrade Phase II Design Contract included a limited scope for Services during Construction and Project Commissioning Services which included the following:

- 20 Request for Information
- 20 Submittal reviews (including resubmittals)
- 3 Extra Work Order technical reviews for technical and contractual merit
- 10 one day visits during construction phase to provide technical support
- Attendance to 12 construction meetings via phone
- Preparation of contractor provided red marks for preparation of record drawings
- Review and comments on Contractor's start-up plan
- Review and comments of training handouts

In Order to accomplish these goals, the CONSULTANT will perform the following tasks:

1.0 Construction Management Services

CONSULTANT will provide Construction Management services to assist Owner in management of the selected Contractor.

The Scope of Work for the CONSULTANT shall be in accordance with the following:

1. CONSULTANT to provide construction management services during project construction consisting of:
 - i. Post-Bid, Pre-Construction Document Preparation
 - ii. Clarifications and Interpretations outside the Design Contract Scope RFI Items
 - iii. Extra Work Order assistance outside the original Contract Scope
 - iv. Construction Administration Assistance
 - v. Manufacturer Shop Test visits
 - vi. Record Drawings
 - vii. Field Equipment Tests
 - viii. Substantial Completion Inspection
 - ix. Final Inspection
 - x. Construction Management Plan Submittal Review.
 - xi. Resident Engineering/field inspection services.
 - xii. Troubleshooting and Start-up Assistance
 - xiii. Construction Observation Report

2. CONSULTANT to provide Project Management/Administration for the efficient and effective management of the above tasks.

3. The following services are available as Additional Services at additional cost:
 - i. Air monitoring/testing.
 - ii. Permit fees.
 - iii. Structural Engineering Inspection.

1.1 Reporting and Information Management

CONSULTANT understands the critical importance of keeping all parties informed throughout the life of the project. Without the implementation of a well-structured communication program a project will fail within the first few months. The Construction Management Plan (CMP) will provide the template for the communication plan and will require a monthly report be developed by the CM to provide the Owner with a complete understanding of the project status and issues. Consultant will provide an Electronic Web Based E-Room to manage and store all key and relevant information including data, submittals, schedules, forms, photos and relevant construction information.

At a minimum the monthly report will include the following items by contract:

- Project Status
- Monthly Progress with progress photos
- Monthly look ahead including CMP Schedule
- Meeting minutes
- Budget Status including certified payrolls and payment requisitions
- Significant Issues
- Action required by the Owner

- Action required by TMWRF Staff
- The following logs/reports:
 - Shop Drawing
 - RFI
 - Daily reports
 - Correspondence
 - Testing
 - Startup
 - Special Inspections
 - Other Information pertinent to the project
 - Construction Observation Report

To develop the monthly report, the CM must track, maintain, and review a significant amount of information. The use of the E-Room will allow this tracking and maintenance to be accomplished in an efficient and organized manner.

1.2 Construction Meetings

Monthly Status meetings will be coordinated and managed by the Construction Manager provided by the CONSULTANT. A Resident Engineer provided by CONSULTANT will attend by-weekly coordination meetings and specialty meetings (outage coordination), starting with the preconstruction meeting. The budget has assumed a total of 12 Construction Management Meetings lead by CONSULTANT's CM and 15 meetings lead by the CONSULTANT'S Resident Engineer.

1.3 General Services

CONSULTANT will coordinate and monitor the contractor's progress of the Work, monitor the General Conditions for each contract, communicate and coordinate with the Owner and TMWRF O&M staff. We will endeavor to avert the installation of Work, material or equipment which has not been approved or does not conform with the requirements of the contract documents. Any such finding will be promptly communicated to the Owner and others as appropriate and we follow-up to confirm that any deficient Work is properly corrected. Other routine services include:

- Develop and maintain the project contact list.
- Review the contractor as-built drawings
- Monitor the development of the draft O&M manual to confirm its completion prior to start-up and testing of equipment and facilities.
- Assist the Owner in determining and documenting the dates of partial utilization and beneficial use of all facilities and equipment.
- Collect and maintain schedule and other items to be reviewed and turned over to the Owner

- Extra Work Order Assistance

1.4 Resident Engineer

The CONSULTANT will provide a Resident Engineer (RE) who will prepare a Daily Inspection Report (DIR) of construction completed each day of the two continuous weeks the RE is on site. We propose to have an RE for two continuous weeks every month and for major outages. The scheduled effort will be dependent on activity but limited to the approved level of effort. The RE will be responsible to ascertain that the inspection staff is observing the Work in accordance with the contract documents and appropriately reporting project activities. Specific responsibilities include the following:

- Conduct monitoring of the construction Work for conformance with the contract documents and approved shop drawing submittals.
- Compile Non Compliance Reports (NCR) for any installed Work found to be deficient or not conforming to the contract documents
- Assist Construction Manager with review of contractor payment requests.
- Review material deliveries for conformance with approved submittals.
- Coordinate interpretations of the contract documents with the contractor's.
- Oversee all code required inspections and testing and provide written documentation of the results.
- Witness, coordinate and document all required field testing activities.
- Analyze and provide recommendations on Extra Work Orders.
- Collect and maintain field record information for use in reviewing the contractor's record drawings.
- Prepare "punch lists" and conduct contract close-out inspections.
- Monitor and keep the Owner informed of construction progress, potential or pending Extra Work Orders, schedule status and any areas of concern on a continuing basis.
- Maintain accurate records to document costs associated with time and material Extra Work Orders.
- Monitor use of site, storage, daily cleanup activities of the contractor's to determine conformance with the requirements of the contract documents.

Resident Engineering services will be provided locally for a period of 12 months

1.5 Resident Inspection

CONSULTANT will provide a Resident Engineer (RE) to inspect the installation of all facets of the Work described in the construction contract documents for included in this CM project.

CONSULTANT will provide a tablet computer with a built-in wireless modem to allow our RE to be able to access electronic versions of shop and contract drawings in the field, document changes to drawings, take photos of field conditions and associate the photos with project files, and potentially use

GPS capabilities to locate key features (underground conduits, pipes, building corners, etc.) in the field. The tablet will be updated daily to include the latest project information for use in the field. When the RE goes into the field with a tablet he will have all project information with him that he can instantly access including shop drawings to verify the Work is correctly installed. All field inspection documentation recorded by the Tablet will be uploaded into E-Room.

1.6 Submittal Review

The objective of this task is to review up to thirty-two (32) submittals. CONSULTANT will review the contractor(s) submittals to ensure that the materials and equipment furnished for this project conform to the design intent and contract requirements. This includes additional shop drawings, shop test information, and Maintenance of Plant Operations (MOPO) plans as required in addition to the original contract scope of services items.

All contractor submittals will be initially transmitted to the field office for logging-in. The CM staff will then forward the submittals to the CONSULTANT for review. Submittal review time will generally be limited to four (4) weeks after receipt from the field office, except for: 1) the review of submittals from non-base bid manufacturers or 2) the review of certain complex submittals.

CONSULTANT has assumed a total of 10 initial submittals, 20 resubmittals and 2 O&M manual conformance to review in developing our cost for this task.

Review of shop drawings is for the limited purpose of checking for conformance with information given and the design concept expressed in the bid documents. The CONSULTANT shall not be responsible for completeness and accuracy of other details such as dimensions and quantities, for safety precautions or for construction means and methods, all of which remain the responsibility of the contractor pursuant to the bid documents.

1.7 Extra Work Order Management

CONSULTANT will manage the Extra Work Order process by evaluating and providing opinions of probable cost for the requested potential Extra Work Orders. CONSULTANT will review all potential Extra Work Order requests submitted by the contractor for justification, cost reasonableness, and schedule impacts. The change request will first be reviewed to confirm that it is based on a legitimate omission or discrepancy in the contract documents and is justifiable as an added cost to the contract.

An independent cost estimate will then be performed by the CONSULTANT to establish a second opinion of probable cost and to use as the basis for negotiation of the change. A record of negotiation will be documented and we will prepare the Extra Work Order in the format, and with the documentation required, for processing by the Owner. CONSULTANT or Owner requested Extra Work Orders will be handled similarly but with the CONSULTANT issuing the change to the Contractor and then requesting a cost to review against the prepared estimate.

In the case of time and material or unit price Work, CONSULTANT will set up accounting procedures, documentation requirements and records to confirm accurate tracking of costs. Similarly, schedule impacts will be reviewed independently by our construction scheduler and time extensions will be

negotiated based on the review and the impact to the critical path of the project. Schedule impacts that only consume float time will not be considered legitimate time extensions to the Contract.

Assumptions:

- Construction Extra Work Orders be evaluated on their entirety by CONSULTANT and recommended action submitted to OWNER for final approval.
- Extra Work Order documentation will be developed in AutoCAD format after sketches are provided by contractor.
- Budget assumes up to ten (10) Extra Work Order reviews.

1.8 Non-Shop Drawing Submittals

The E-Room will also be utilized to track non-shop drawing submittals such as O&M manuals, spare parts, warranties, etc. The CONSULTANT will develop a list of O&M manuals, spare parts, and warranties to be included in E-Room to allow the tracking to occur. We will track the progress of O&M manual preparation address all review issues in the same manner as shop drawings. The tracking of warranties will be completed in a similar manner.

O&M manuals, warranties and spare parts will be tracked electronically and stored in a designated TMWRF location as they are submitted. We will verify that the approved O&M manual, warranty or spare part has been provided as well as the required number is provide and utilizing our standard transmittal from will turn it over to the Owner. The transmittal will be signed by the designated TMWRF employee so there is documentation that the Owner has received the required number of documents or parts. This transmittal will be entered into the E-Room.

1.9 Scheduling Service

During the schedule development process for each construction task CONSULTANT will review the Contractor's a schedule that provides a firm basis for progress measurement. At a minimum, CONSULTANT will perform a detailed review of the following major components of the schedule including:

- Activities provided for entire scope of Work
- Appropriate logical relationships without Extraneous "preferential" logic
- Appropriate level of description, coding, resource allocation, calendars and constraints for each activity
- Consistent production estimates and activity durations
- Appropriate use of logs or "steps" to describe elements of activities that are not evident with a single description
- Verification that logic does not include inappropriate techniques such as negative lags, float sequestering, start-to-finish relationships, non-contractual constraints, undefined calendars, and the like

- Verification that proper submittal, approval, fabrication, delivery, storage, and other periods are defined, logically sequenced and consistent with the contract documents.

At monthly intervals CONSULTANT will review the progress updates from each contractor and contract package. After validating progress during this period, we will perform more intensive Construction Management Plan analysis techniques to fully analyze the progress update to evaluate the project status, forecast risk, evaluate changes to the baseline, and offer expert response to the data provided. In parallel with this, alternate sequencing and staging of construction packages will be constantly evaluated for potential time savings and determination of optimum contract delivery methods.

1.10 Clarifications and Interpretations

In this task, the CONSULTANT will review and respond to contractor requests for information (RFIs), clarifications and interpretations, engineering input required to address field conditions or field conflicts, and other design-related issues or information requests forwarded by the resident staff. CONSULTANT has assumed a total of 30 RFIs in developing our costs to perform these services.

1.11 Construction Administration Assistance

Under this task, the CONSULTANT will provide technical and construction support services to the Owner, and will provide certain independent support to the construction activities for those situations requiring specific expertise not possessed by the Owner. More specifically, this includes the following:

- Participation and/or a lead role in special purpose construction meetings.
- In conjunction with the Owner's PM, review and respond to issues regarding potential Extra Work Orders, change-or scope situations and claims by the Contractor. Provide recommendations to the Owner staff as appropriate.
- Provide specialized assistance to the on-site and Owner's staff as required. This includes on-site observations by personnel with particular expertise to observe specialized construction such as complex structural support elements, electrical bus-ways and complex elements related to the Medium voltage distribution systems.
- Attendance and participation at monthly progress meetings and specialty outage meetings with the Contractor as required. This includes six (12) construction meetings and eight (8) specialty construction meetings to address critical outages for the facility. This will be combined with a site inspection by those personnel.

1.12 Record Drawings Management

The CONSULTANT will regularly review the contractor's set of record drawings at the site to verify that they are continually updated to reflect as-built conditions. The benefit is to make sure the Contractor is recording field installation details and any changes to the Contract Document accurately and the final version of the record drawings reflects the as-built conditions of the site. At the project completion, the CONSULTANT will update the Contract Drawings they were responsible for as listed

in exhibit A to show all reported changes including Extra Work Order Work. One (1) set of reproducible bond and (1) Master CD Set and three (3) duplicate CD sets in AutoCad format will be provided to the Owner at the project's completion.

1.13 Manufacturer Shop Test Site Visits

It is anticipated that CONSULTANT will attend the shop tests of major equipment as part of the construction quality review process. It is assumed that one (1) CONSULTANT representative will witness the critical shop tests.

Assumptions related to scope effort and costs are: (1) CONSULTANT labor costs are included in this scope; (2) any travel or lodging expenses for CONSULTANT employees are to be reimbursed through this contract.

1.14 Field Equipment Tests

Prior to final acceptance of electrical equipment and underground electrical feeders, the contractor will perform Final Field Tests in accordance with the contract specifications. Final Field Tests may require operation of equipment through extended periods and over a range of switching and operating conditions to demonstrate that the equipment is free of all defects and is completely ready for operation by the Owner. CONSULTANT will review the test plan submitted by the construction contractor and will witness the field tests for the Switchgear, Protective Relays, Switchboards, Transformers, Generator quick connect boxes, as well as metering, protective relaying, Ethernet Network and electrical field tests. In the event any test is not completed to the satisfaction of the CONSULTANT or the subject equipment does not pass the prescribed criteria, the construction contractor shall be required to correct the situation and retest until the test is completed and the criteria met.

1.15 Substantial Completion Inspection

CONSULTANT will conduct an inspection at the substantial completion of the Switchgear modifications, Protective Relays and settings, Switchboards, Transformers, Generator quick connect boxes, as well as metering, and Ethernet network systems. Representatives of the Owner and the Owner of Sparks, and the respective CONSULTANT staff will be present. The purpose is to confirm the Work has been substantially completed in compliance with the intent of the design and has progressed sufficiently to be put into beneficial use. The CONSULTANT will make recommendations on acceptance of the Work for the systems listed herein by the Owner and issue a list of any remaining Work to be completed by the contractor prior to its acceptance.

1.16 Final Inspection

CONSULTANT will assist the Owner's staff as appropriate in conducting the final inspection and make recommendation to Owner regarding final acceptance of the construction of the Switchgear modifications, Protective Relays and settings, Switchboards, Transformers, Generator quick connect

boxes, underground feeders and electrical modifications as well as metering, and Ethernet network systems.

1.17 Project Administration

Due to the complexity of the project, the phased construction sequence, the need to maintain existing plant operations and the number of multiple outages and temporary power required, the CONSULTANT will closely coordinate Work among the Owner, TMWRF staff and the Contractor to ensure coordinated and timely completion of the Work. Work under this task includes management and administration of the Construction Management including internal tracking of submittals, Extra Work Orders and RFIs.

CONSULTANT will provide a part time Construction Manager who will travel to the site for meetings once a month. CONSULTANT will provide a part time local Resident Engineer who will manage the day to day activities of the Construction Phase of the project. CONSULTANT has budgeted a period of two weeks each month of RE support for a total of 24 weeks of coverage during the construction phase. The Construction management services will be provided for a period of 12 months.

2.0 Contingency

CONSULTANT has included a budget allowance of \$25,000 to address additional project scope items. At the request of the OWNER, CONSULTANT will prepare a written Task Order request to obtain authorization to proceed with the additional scope of services request.

Assumptions:

- Special inspections will be requested in the event CONSULTANT deems necessary to obtain a second opinion to validate testing and Work provided by contractor that does not comply with the contract documents. Approval of such services will be by OWNER in writing to the CONSULTANT authorizing such services.
- Any additional Extra Work Order support services requested by Owner within the limits of the Contingency Budget.
- Budget assumes a not to exceed \$25,000 for a contingency task upper limit.

Project: Estimate of Expenditures - TMWRF Electrical System Upgrades Phase II Construction Management
 Parts: 1
 Agreement No:
 Consultant: CDM Smith

Prepared by: R. Aviles
 Date: 8/5/2014
 Version: 1

REA
 8/7/2014
 verFINAL

TASKS	Officer Aviles	Rate	Vice President Aviles	Rate	Engineer 6/7 Blomberg	Rate	Engineer 5/6 Fransen	Rate	Engineer 3/4 Stallaker	Rate	Engineer 1/2 Yarborough	Rate	Designer Ray	Rate	Admin McKenzie	Rate	Contract Administrator	Rate	Total	
Part A - Electrical System Upgrades																				
1.0 Construction Management Services																				
1.2 Reporting and Information Management	16										160									
1.3 Construction Meetings	96										162									
1.4 General Services	0										96									
1.5 Resident Engineer	0										130									
1.6 Resident Inspection	20										130									
1.7 Submittal Review	16										100									
1.8 Change Order Management	32										80									
1.9 Non-Shop Drawings Submittal	24										60									
1.10 Scheduling Services	40										120									
1.11 Clarifications and Interpretations	56										80									
1.12 Construction Administrative Assistance	24										140									
1.13 Record Drawings Management	16										80									
1.14 Manufacturer Shop Test Site Visit	20										40									
1.15 Field Equipment Tests	16										60									
1.16 Substantial Completion Inspection	24										60									
1.17 Final Inspection	40										60									
1.18 Project Administration	80										200				50			24		
Subtotal	520	\$ 130,000	0	\$ -	0	\$ -	0	\$ -	0	\$ -	1758	\$ 219,750	0	\$ -	50	\$ 5,000	24	\$ 3,120	\$ 357,870	
2.0 Project Contingency																				
2.1 Project Contingency																				\$ -
Subtotal	0	\$ -	0	\$ -	0	\$ -	0	\$ -	0	\$ -	0	\$ -	0	\$ -	0	\$ -	0	\$ -	\$ 25,000	
Reimbursable Expenses																				
Materials																				\$ 5,000
Travel																				\$ 9,500
Reproduction																				\$ 1,280
Subtotal																				\$ 15,780
Total	520	\$ 130,000	0	\$ -	0	\$ -	0	\$ -	0	\$ -	1758	\$ 219,750	0	\$ -	50	\$ 5,000	24	\$ 3,120	\$ 398,650	

